

**REMARKS**

Claims 1-20 are all the claims presently pending in the application. Claims 1-15 have been amended to more clearly define the invention and claims 16-20 have been added.

Claims 1, 8 and 20 are independent.

Applicant gratefully acknowledges that claim 4 would be allowable if rewritten in independent form. However, Applicant respectfully submits that all of the claims are allowable.

These amendments are made only to more particularly point out the invention for the Examiner and not for narrowing the scope of the claims or for any reason related to a statutory requirement for patentability.

Applicant also notes that, notwithstanding any claim amendments herein or later during prosecution, Applicant's intent is to encompass equivalents of all claim elements.

Claims 1, 5, 8, 10-12, and 15 stand rejected under 35 U.S.C. § 112, second paragraph as indefinite. Claims 1, 3, 6-9, 11-12 and 14 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Thompson et al. (U.S. Patent No. 5,465,401). Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Thompson et al. in view of Ganesan et al. (U.S. Patent No. 5,812,951). Claims 5 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thompson et al. in view of Crnkovic et al. (U.S. Patent No. 5,815,805).

These rejections are respectfully traversed in the following discussion.

## **I. THE CLAIMED INVENTION**

The claimed invention is directed to a portable telephone set, including a detachable transmission module, and a transmitting circuit adapted to transmit in a transmission frequency signal in accordance with instructions in a predetermined software program. The detachable transmitting module conditions the transmission frequency signal received from the transmitting circuit.

Conventional software portable telephone sets are reconfigurable for different transmission systems by replacing the operating program require wide-band active and passive components in order to cope with a plurality of different systems. However, any increase in frequency band coverage is accompanied by a corresponding deterioration in characteristics.

This deterioration is particularly evident on the transmission side of the system. More particularly, it has been particularly difficult to maintain a high efficiency for a transmitting power amplifier over a wide frequency band.

Similarly, it is difficult to increase frequency band coverage without loss in transmission signal filters and isolators.

The present invention overcomes these difficulties by providing a portable telephone set with a detachable transmission module that conditions a transmission frequency signal received from a transmitting circuit. In this manner, the present invention provides the ability to condition the transmission frequency signal which may have been generated by a wide band frequency generating circuit to correct any deficiencies in that transmission signal.

In one embodiment of the present invention, the condition by the detachable transmission module corresponds to a specific transmission system.

## **II. THE 35 U.S.C. § 112, SECOND PARAGRAPH REJECTION**

The Examiner alleges that claims 1, 5, 8, 10-12 and 15 are indefinite. While Applicant submits that such would be clear to one of ordinary skill in the art taking the present Application as a whole, to speed prosecution claims 1, 5, 8, 10-12 and 15 have been amended in accordance with Examiner Nguyen's helpful suggestions.

In view of the foregoing, the Examiner is respectfully requested to withdraw this rejection.

## **III. THE PRIOR ART REJECTIONS**

### **A. The Thompson reference**

Regarding the rejection of claims 1, 3, 6-9, 11-12 and 14, the Examiner alleges that the Thompson et al. reference teaches the claimed invention. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by this reference.

The Thompson et al. reference does not teach or suggest the features of the present invention including a detachable transmitting module that conditions the transmission frequency signal received from the transmitting circuit. As explained above, this feature is important for improving the characteristics of the transmission signal which may have been generated by a wide-band frequency generating circuit.

In contrast, the Thompson reference discloses a communication system which includes multiple purpose personal communication devices 50 and 150. The multiple purpose personal communication devices are adapted to receive an application module 100.

The application module 100 may contain a microprocessor and associated electronic circuits to perform different communication functions (col. 3, lines 13-17). Further, the application modules may include required frequency, protocols and an antenna to allow use of the associated personal communication device in a corresponding segment of the electromagnetic energy spectrum (col. 3, line 65 - col. 4, line 3). The Thompson et al. reference discloses removing one application module and inserting another to allow use of multiple communication networks (col. 4, lines 3-6).

In summary, the Thompson reference discloses application modules 100 which provide additional frequency capability for additional portions of the electromagnetic spectrum which is not provided for by the personal communication device 50 and/or 150 (col. 16, lines 5-21).

Therefore, in contrast to the present invention, the Thompson reference does not teach or suggest a detachable transmitting module that conditions the transmission frequency signal received from the transmitting circuit. Rather, the Thompson reference discloses an application module which generates its own frequency signal as opposed to conditioning a signal received from a transmitting circuit to correct deficiencies.

Indeed, the Thompson reference does not even suffer from the same problems which are solved by the present invention. The Thompson reference does not teach or suggest wide-band frequency generators which generate transmission frequency signals having characteristics which deteriorate as the frequency band is widened. Rather, the Thompson reference discloses dedicated transmission circuitry which are each configured directly for a specific transmission system in which the application module is designed to operate.

Therefore, the Thompson reference does not suffer from the same problems and, as a result, is

not concerned with and does not solve the problems experienced by portable telephone sets having wide-band frequency transmitters.

Therefore, contrary to the allegations of the Examiner, the Thompson reference does not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection of claims 1, 3, 6-9, 11-12 and 14.

**B. The Thompson reference in view of the Ganesan et al. reference**

Regarding the rejection of claim 2, the Examiner alleges that the Ganesan et al. reference would have been combined with the Thompson reference to form the claimed invention. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Applicant submits that these references would not have been combined as alleged by the Examiner. Indeed, the references are directed to completely different matters and problems.

Specifically, the Thompson reference is directed to solving the problems associated with the rapidly expanding number of different information services and the different types of new equipment, the lack of interchangeability between that equipment and software and the need for continuous operator training (col. 1, lines 46-51). The Thompson reference addresses these problems by providing a communication system having personal communication devices with application modules that expand the capability of those personal communication devices.

In contrast, the Ganesan et al. reference is specifically directed to providing a wireless access communications system which improves signal routing and decreases hardware requirements when specific applications arise (col. 2, lines 2-7), will operate in a low power application, support voice and data communications and communicate with other PCS systems (col. 2, lines 10-13), allow a set of portable subscriber units (Sus) with a single dialed number (col. 2, lines 18-20), transmit and receive both voice and data (col. 2, lines 25-27) as well as other capabilities (col. 2, line 34- col. 3, line 6). Therefore, one of ordinary skill in the art would not have been motivated to modify the communication system disclosed by the Thompson reference which expands the capability of personal communication devices to handle different systems based upon the disclosure of the Ganesan et al. reference because the Ganesan et al. reference is not at all concerned with providing a personal communication device with the ability to use different systems. Thus, the references would not have been combined, absent hindsight.

Further, Applicant submits that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, the Examiner does not even support the combination by identifying a reason for combining the references.

The Examiner alleges that it would have been obvious to modify the personal communication device disclosed by the Thompson reference of having a detachable module including the transmitting function with the disclosure of the “detailed technique of how to transmit analog signals using a modulator in order to provide ‘a modulated output analog signal’ for transmitting signals in communication to (sic) the analog system, if any, as preferred” as allegedly disclosed by the Ganesan et al. reference. However, Applicant respectfully submits that the personal communication device disclosed by the Thompson

reference already discloses transmitting a modulated analog signal. Therefore, one of ordinary skill in the art would not have been motivated to make the Examiner's alleged modification, simply because such a modification is unnecessary.

Even assuming arguendo that one of ordinary skill in the art would have been motivated to combine these references, the combination would not teach or suggest each and every element of the claimed invention.

The Thompson reference does not teach or suggest the feature of a detachable transmitting module that conditions a transmission frequency signal received from the transmitting circuit. As explained above, this feature is important for improving the characteristics of the transmission signal which may have been generated by a wide-band frequency generating circuit.

Similarly, the Ganesan et al. reference, like the Thompson reference, does not teach or suggest the feature of a detachable transmitting module that conditions a transmission frequency signal received from the transmitting circuit. Indeed, in contrast with the present invention, the Ganesan et al. reference discloses an RF transmit section 22 which is hard wired to a database 26 within a subscriber unit 20.

Clearly, these novel features are not taught or suggested by the Ganesan et al. reference. Indeed, the Ganesan et al. reference is completely unrelated to the claimed invention.

Therefore, the Examiner is respectfully requested to withdraw this rejection of claim

**C. The Thompson reference in view of the Crnkovic et al. reference**

Regarding the rejection of claims 5 and 13, the Examiner alleges that the Crnkovic et al. reference would have been combined with the Thompson reference to form the claimed invention. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Applicant submits that these references would not have been combined as alleged by the Examiner. Indeed, the references are directed to completely different matters and problems.

Specifically, the Thompson reference is directed to solving the problems associated with the rapidly expanding number of different information services and the different types of new equipment, the lack of interchangeability between that equipment and software and the need for continuous operator training (col. 1, lines 46-51). The Thompson reference addresses these problems by providing a communication system having personal communication devices with application modules that expand the capability of those personal communication devices.

In contrast, the Crnkovic et al. reference is specifically directed to attenuating an undesired signal in a portable radio transceiver (col. 2, lines 61-64) by providing a transmitter that produces an undesired signal including a frequency substantially equal to the receiver operating frequency (col. 3, lines 25 - 32) and electrically isolating first and second antennas from each other by a predetermined degree of electrical isolation to attenuate the undesired signal (col. 3, lines 33-38). Therefore, one of ordinary skill in the art at the time of the invention would not have been motivated to modify the Thompson reference which is



directed to providing a communication system having personal communication devices with application modules that expand the capability of those personal communication devices based upon the disclosure of the Crnkovic et al. reference which is directed to the completely different problem of attenuating an undesired signal in a portable radio transceiver. Thus, the references would not have been combined, absent hindsight.

Further, Applicant submits that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, the Examiner does not even support the combination by identifying a reason for combining the references.

Even assuming arguendo that one of ordinary skill in the art would have been motivated to combine these references, the combination would not teach or suggest each and every element of the claimed invention.

The Thompson reference does not teach or suggest the feature of a detachable transmitting module that conditions a transmission frequency signal received from the transmitting circuit. As explained above, this feature is important for improving the characteristics of the transmission signal which may have been generated by a wide-band frequency generating circuit.

Moreover, the Crnkovic et al. reference, like the Thompson reference, does not teach or suggest the feature of a detachable transmitting module that conditions the transmission frequency signal received from a transmitting circuit. Indeed, the Crnkovic et al. reference appears to disclose that the transmitter 101 generates its own transmission frequency signal using the signal generator 111 and that the remaining components of the transmitter 101 all remain within the transmitter 101.

Clearly, these novel features are not taught or suggested by the Ganesan et al. reference. Indeed, the Ganesan et al. reference is completely unrelated to the claimed invention.

Therefore, the Examiner is respectfully requested to withdraw this rejection of claims 5 and 13.

#### **IV. FORMAL MATTERS AND CONCLUSION**

The Office Action objects to claims 1-2, 4, 8, 10-12 and 14. This Amendment amends claims 1-2, 4, 8, 10-12 and 14 in accordance with Examiner Nguyen's helpful suggestions. Applicant respectfully requests withdrawal of this objection.

Applicant also requests acknowledgment of the references which were cited by the Applicant in an Information Disclosure Statement filed on December 5, 2000. Specifically, the Examiner failed to initial the Information Disclosure Statement filed on December 5, 2000 to indicate consideration of U.S. Patent No. 5,896,566 to Averbuch et al. Attached hereto is another copy of the PTO-1449 form for the Examiner's convenience.

In view of the foregoing amendments and remarks, Applicant respectfully submits that claims 1-20, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

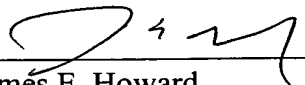
Serial No. 09/532,894  
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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 7/14/03

  
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| <div style="text-align: center;"> <p><b>INFORMATION DISCLOSURE CITATION</b></p> <p><i>(Use several sheets if necessary)</i></p> </div> <div style="text-align: center;"> <p><b>JUL 14 2003</b></p> </div> | <b>Docket Number (Optional)</b><br>11P07 | <b>Application Number</b><br>09/532,894 |
|   | <b>Applicant(s)</b><br>Masataka MITAMA   |   |
|   | <b>Filing Date</b><br>March 22, 2000     | <b>Group Art Unit</b><br>2749           |

## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS

| REF | DOCUMENT NUMBER | DATE     | COUNTRY        | CLASS | SUBCLASS | Translation |    |
|-----|-----------------|----------|----------------|-------|----------|-------------|----|
|     |                 |          |                |       |          | YES         | NO |
|     | GB 2 326 309 A  | 12/16/98 | United Kingdom |       |          |             |    |
|     |                 |          |                |       |          |             |    |
|     |                 |          |                |       |          |             |    |
|     |                 |          |                |       |          |             |    |
|     |                 |          |                |       |          |             |    |

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

|  |  |                             |
|--|--|-----------------------------|
|  |  | Search Report dated 9/28/00 |
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| EXAMINER | DATE CONSIDERED |
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**EXAMINER:** Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.